

wherein a chip capacitor connected to the microwave monolithic integrated circuit chip is loaded on the conductor plate.

7. A transceiver apparatus comprising:

a RF oscillator apparatus having a conductor plate which supports a dielectric resonator, a microwave monolithic integrated circuit chip which is electromagnetically coupled to the dielectric resonator, and a conductive wall which determines a resonance frequency of the dielectric resonator;

a receiving section which makes a RF signal generated from the RF oscillator apparatus a local oscillation signal of a mixer; and

a transmitting section having an amplifier for amplifying power.

8. A transceiver apparatus according to claim 7, wherein the RF oscillator apparatus whose the resonance frequency is set in advance is built into the transceiver apparatus.

9. A transceiver apparatus according to claim 7, wherein such a seal material as to cover an upper portion of the conductive wall is provided.

10. A transceiver apparatus according to claim 7, wherein the receiving section and the amplifier are constituted by microwave monolithic integrated circuit chips.

11. A transceiver apparatus comprising:

a RF oscillator apparatus having a cavity resonator and a conductor plate which supports a microwave monolithic integrated circuit chip electromagnetically coupled to the cavity resonator, a resonance frequency of the cavity resonator

being set in advance;

a receiving section which makes a RF signal generated from the RF oscillator apparatus a local oscillation signal of a mixer; and

a transmitting section having an amplifier for amplifying power.

12. A RF oscillator according to claim 2, wherein a chip capacitor connected to the microwave monolithic integrated circuit chip is loaded on the conductor plate.

13. A RF oscillator according to claim 3, wherein a chip capacitor connected to the microwave monolithic integrated circuit chip is loaded on the conductor plate.

14. A RF oscillator according to claim 4, wherein a chip capacitor connected to the microwave monolithic integrated circuit chip is loaded on the conductor plate.

15. A RF oscillator according to claim 5, wherein a chip capacitor connected to the microwave monolithic integrated circuit chip is loaded on the conductor plate.

16. A transceiver apparatus according to claim 8, wherein such a seal material as to cover an upper portion of the conductive wall is provided.

17. A transceiver apparatus according to claim 8, wherein the receiving section and the amplifier are constituted by microwave monolithic integrated circuit chips.

18. A transceiver apparatus according to claim 9, wherein the receiving section and the amplifier are constituted by microwave monolithic integrated circuit chips.

19. A transceiver apparatus according to claim 16, wherein the receiving section and the amplifier are constituted by microwave monolithic integrated circuit chips.

20. A manufacturing process of a transceiver apparatus, the process comprising the steps of:

preparing a RF oscillator apparatus whose resonance frequency is set in advance, a first semiconductor chip constituting a receiving section which makes a RF signal generated from the RF oscillator apparatus a local oscillation signal of a mixer, and a second semiconductor chip constituting a transmitting section having an amplifier for amplifying power;

fixing the RF oscillator apparatus and the first and second semiconductor chips to a module substrate by an adhesive;

connecting wires of the module substrate to the RF oscillator apparatus and the first and second semiconductor chips by wire bonding, respectively; and

airtightly sealing the RF oscillator apparatus and the first and second semiconductor chips loaded on the module substrate.

21. A manufacturing process of a transceiver apparatus according to claim 20, wherein the module substrate is used as a module substrate having a wiring substrate being connected by the wire bonding and a base substrate supporting the wiring substrate.

22. A manufacturing process of a transceiver apparatus according to claim 20, wherein the RF oscillator apparatus is

used as a RF oscillator apparatus having a dielectric resonator, a conductor plate which supports a microwave monolithic integrated circuit chip electromagnetically coupled to the dielectric resonator, and a conductive wall which determines a resonance frequency of the dielectric resonator.

23. A manufacturing process of a transceiver apparatus according to claim 20, wherein silver paste is used as the adhesive.

24. A manufacturing process of a transceiver apparatus according to claim 21, wherein the RF oscillator apparatus is used as a RF oscillator apparatus having a dielectric resonator, a conductor plate which supports a microwave monolithic integrated circuit chip electromagnetically coupled to the dielectric resonator, and a conductive wall which determines a resonance frequency of the dielectric resonator.

25. A manufacturing process of a transceiver apparatus according to claim 21, wherein silver paste is used as the adhesive.

26. A manufacturing process of a transceiver apparatus according to claim 22, wherein silver paste is used as the adhesive.

27. A manufacturing process of a transceiver apparatus according to claim 24, wherein silver paste is used as the adhesive.